

**REMARKS**

Claims 1 and 3-14 are pending in this application. By this Amendment, claim 1 is amended for form. No new matter is added.

The courtesies extended to Applicants' representative by Examiner Huffman at the telephone interview held February 13, 2007, are appreciated. The reasons presented at the interview as warranting favorable action are incorporated into the remarks below and constitute Applicants' record of the interview.

**I. Allowable Subject Matter**

Applicants thank the Examiner for the indication that claims 12-14 are allowed and that claims 3, 6, 7 and 10 contain allowable subject matter.

**II. Claim 1 Satisfies All Formal Requirements**

The Office Action objects to claim 1 for informalities. Specifically, the Office Action asserts that "wherein" should be deleted by line 10 of claim 1. By this Amendment, claim 1 is amended accordingly. Withdrawal of the objection is thus respectfully requested.

**III. Claims 1, 4, 5, 8, 9 and 11 Define Patentable Subject Matter**

The Office Action rejects claims 1, 4, 5, 8, 9 and 11 under 35 U.S.C. §103(a) over U.S. Patent No. 6,866,359 to Pan et al. in view of U.S. Patent No. 4,498,088 to Kanayama. This rejection is respectfully traversed.

The Office Action asserts that Pan discloses the claimed first housing, controller and claimed power supply. The Office Action acknowledges that Pan does not disclose the claimed detector device. However, the Office Action asserts on page 5 that Kanayama remedies Pan's deficiencies because Kanayama discloses a detector (Fig. 2, element 28) that detects a condition of a mechanical piezoelectric module as the claimed detector device (Kanayama, Abstract). These assertions are respectfully traversed.

The claimed electronic device would not have been achieved by the alleged combination of Pan and Kanayama. Pan does not disclose the claimed power supply device. The Office merely asserts that Pan discloses the claimed power supply device because "Pan discloses a power supply since one is required to power the device." However, Pan does not teach or suggest a power supply device that is "capable of supplying drive power to the drive source while changing a current value or pulse width modulation duty value of the drive power," as recited in claim 1.

Further, Kanayama does not remedy Pan's deficiencies. As agreed during the telephone interview, Kanayama does not teach or suggest "a detector that detects a condition change of the mechanical module from a static condition to a dynamic condition, when the power supply device supplies the drive power to the drive source while changing the drive power," as recited in independent claim 1 (emphasis added).

The alleged detector of Kanayama, a sensing circuit 28, merely connects to the piezoelectric transducer 22 for sensing the residual oscillation of the ink liquid after the termination of the initial oscillation (Kanayama, Abstract and col. 3, lines 15-25). That is, the sensing circuit of Kanayama determines whether there are air bubbles contained in the liquid after the oscillation, i.e., a dynamic condition, is terminated. Furthermore, the sensing circuit of Kanayama merely determines whether there are air bubbles contained in the liquid (Kanayama, col. 3, lines 15-25). Thus, the sensing circuit of Kanayama does not detect a condition change of the mechanical module from a static condition to a dynamic condition, when the power supply device supplies the drive power to the drive source while changing the drive power, as recited in independent claim 1. Accordingly, Kanayama does not disclose the claimed detector device.

Thus, for at least these reasons discussed above and those agreed to during the telephone interview, independent claim 1 is patentable over Pan and Kanayama. Further,

claims 4, 5, 8, 9 and 11, which depend from claim 1, are also patentable over Pan and Kanayama for at least the reasons discussed above, as well as for the additional features they recite. Withdrawal of the rejection is thus respectfully requested.

**IV. Conclusion**

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



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JAO:RBI/hms

Attachment:  
Petition for Extension of Time

Date: February 16, 2007

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